

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel Claims 1-28 without prejudice or disclaimer and add new Claims 29-82 as follows:

Listing of Claims:

1-28. (Canceled)

29. (NEW) A power plant capable of energizing at least one power generating device, the plant comprising:

a stack having a base and at least one inlet and at least one outlet,
at least one passage in the stack communicating between said at least one inlet and said at least one outlet and which receives an air stream drawn from an air source;
the stream of air which moves within said at least one passage responsive to an energy input;

wherein the power generating device is responsive to said air stream introduced into said stack.

30. (NEW) A power plant according to claim 29 wherein, the stack includes means therein to create an air spiral.

31. (NEW) A power plant according to claim 30 wherein, said means to create said air spiral comprises at least one helix formation extending longitudinally along the stack.

32. (NEW) A power plant according to claim 31 wherein the helix formation includes first and second helix sections.

33. (NEW) A power plant according to claim 32 wherein the first and second helix sections respectively define first and second helix passages.

34. (NEW) A power plant according to claim 33 wherein the first and second helix passages are separated from each other by a valve assembly which selectively allows air communication between said first and second passages.

35. (NEW) A power plant according to claim 34 wherein air from the first passage communicates with the second passage when said valve assembly is actuated.

36. (NEW) A power plant according to claim 35 wherein air is drawn into one said helix sections when air pressure in one section is lower than the air pressure in the other section.

37. (NEW) A power plant according to claim 36 wherein air is drawn into said stack when air outside the stack is at a lower pressure than air inside the stack.

38. (NEW) A power plant according to claim 37 wherein the air stream is introduced via at least one opening in the stack.

39. (NEW) A power plant according to claim 38 wherein the air is introduced into each said helix formations via an opening at the base of the stack.

40. (NEW) A power plant according to claim 39 wherein air entering the stack via said opening in the base is heated air which travels upwardly in said helix formations.

41. (NEW) A power plant according to claim 38 wherein said air is introduced into the stack via an opening at the top of the stack.

42. (NEW) A power plant according to claim 40 wherein air introduced into the top of the stack travels downward in the direction of the base of the stack.

43. (NEW) A power plant according to claim 42 wherein one said helix formations is open to the atmosphere at the top of the stack via a louver assembly.

44. (NEW) A power plant according to claim 43 wherein air entering the top of the stack into one said helix formations opposes air rising in the other said helix formation.

45. (NEW) A power plant according to claim 44 wherein air entering at the base of the stack is sucked into the stack through an air intake device at the base of the stack.

46. (NEW) A power plant according to claim 45 wherein, the stack is incorporated with a building.

47. (NEW) A power plant according to claim 46 wherein, the power generating device provides power to said building.

48. (NEW) A power plant according to claim 47 wherein the building includes means to force air into the stack to create said air spiral.

49. (NEW) A power plant according to claim 48 wherein said air spiral is generated by means responsive to wind.

50. (NEW) A power plant according to claim 49 wherein said means to generate said spiral is at least one baffle which channels said air into the stack.

51. (NEW) A power plant according to claim 50 wherein said baffle is computer controlled.

52. (NEW) A power plant according to claim 51 wherein said power generating device is at least one turbine.

53. (NEW) A power plant according to claim 52 wherein said source of air is passing atmospheric wind.

54. (NEW) A power plant according to claim 53 wherein, the helix formations also incorporate a stairway.

55. (NEW) A power plant according to claim 54 wherein the stack is used to transfer air from surrounding city structures.

56. (NEW) A power plant according to claim 55 wherein the power generating device provides power for at least one building.

57. (NEW) A power plant according to claim 56 wherein the passing atmospheric wind is used to augment another source of heated air drawn from within the building.

58. (NEW) A power plant according to claim 57 wherein the atmospheric wind contributes to a spiral updraft in the helix formations.

59. (NEW) A power plant according to claim 58 wherein the building further comprises a cladding defining at least one internal space between an outer surface of the cladding and an outer surface of the building.

60. (NEW) A power plant according to claim 59 wherein air in said at least one internal space is heated by solar power.

61. (NEW) A power plant according to claim 60 wherein the cladding comprises at least one layer of glass which allows solar radiation to pass therethrough, thereby heating the air in the at least one space which supplements air drawn into said stack from the atmosphere.

62. (NEW) A power plant according to claim 61 wherein the at least one space is capable of receiving water for heating by solar power.

63. (NEW) A power plant according to claim 62 wherein heated air rising in said helix spiral is supplemented by air heated in said space between the cladding and said building.

64. (NEW) A power plant according to claim 63 wherein, the at least one space includes solar radiation collectors.

65. (NEW) A power plant according to claim 64 wherein each solar radiation collector includes at least one air passage which receive thermal energy to supplement heating of air drawn into the building.

66. (NEW) A power plant according to claim 65 wherein condensate from said cladding surfaces is collected by a pipe network for use as a water supply.

67. (NEW) A power plant according to claim 66 wherein said heating source is provided by waste heat of air conditioning systems from nearby structures.

68. (NEW) A power plant according to claim 66 wherein said heating source is provided by water circulated in glazing systems.

69. (NEW) A power plant according to claim 66 wherein said heating source is provided by heat absorbed by hard surfaces such as roadways.

70. (NEW) A power plant according to claim 66 wherein said heating source is provided by heat trapped by glass roofs.

71. (NEW) A power plant according to claim 66 wherein said heating source is provided by piped hot water.

72. (NEW) A power plant according to claim 66 wherein the stack is inside the building.

73. (NEW) A power plant according to claim 66 wherein the stack is located outside the building.

74. (NEW) A power plant comprising a vertical stack having an inlet and an outlet and at least one passage therebetween and capable of transferring air from one end of the stack to the other;

the air being introduced into the stack from an air source via openings in said stack;

the air in the stack energised to move along the stack to drive one or more energy generation devices associated with the stack,

said air source selected from one or more of the following alone or in combination;

waste heat of air conditioning systems from nearby structures;

heated air generated by water circulated in glazing systems, awnings, covered walkways, road surfaces; wherein the heated air is transferred to said stack .

75. (NEW) A power plant according to claim 74 wherein the at least one passage is shaped as a helix.

76. (NEW) A power plant according to claim 75 wherein there are at least two helix passages which co operate to exchange air therebetween via a valve assembly.

77. (NEW) A power plant according to claim 76 wherein the stack is located adjacent at least one building and provides energy to said at least one building.

78. (NEW) A power plant according to claim 76 wherein the stack is located adjacent at least one building and exhausts waste air from said at least one building.

79. (NEW) A power plant comprising a vertical stack having an inlet and an outlet an at least one passage therebetween and capable of transferring air from one end of the stack to the other;

the air being introduced into the stack from an air source via openings in said stack;

the air in the stack energised to move along the stack to drive one or more energy generation devices associated with the stack; the stack further comprising

means to create an air spiral and including at least one helix formation extending longitudinally along the stack in which said air travels; wherein the helix formation includes first and second helix sections, the first and second helix sections respectively defining first and second helix passages.

80. (NEW) A power plant according to claim 79 wherein the first and second helix passages are separated from each other by a valve assembly which selectively allows air communication between said first and second passages.

81. (NEW) A power plant according to claim 80 wherein air from the first passage communicates with the second passage when said valve assembly is actuated.

82. (NEW) A power plant according to claim 81 wherein air is drawn into one said helix sections when air pressure in one section is lower than the air pressure in the other section.